### VOLUME I

- i. Table of Contents
- ii. A Notice to the Reader

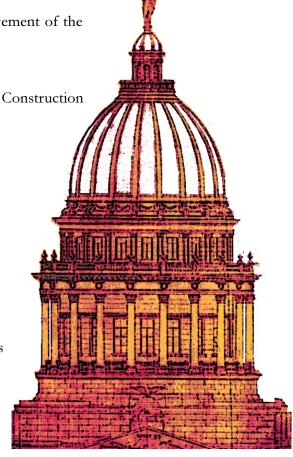
#### I. INTRODUCTION AND EXECUTIVE SUMMARY

- A. Project Team and Methodology
- B. Executive Summary:
  - 1. Introduction to the Executive Summary
  - 2. General Project Summary
  - 3. Issue Statements
    - a. Enhancing Life Safety
    - b. Enhance Functional Usefulness
    - c. Preserve Historical & Architectural Integrity
- C. Abbreviated Construction History
- D. Categorical Executive Summaries and Evaluation Matrices

#### VOLUME II

## II. CONSTRUCTION HISTORY OF THE STATE CAPITOL AND CAPITOL HILL.

- A. Introduction
- B. State Capitols: an Evolving Type
- C. Utah Fights for Statehood, but Not for a Statehouse
- D. Establishing the Capitol Commission
- E. Development of the Site and the Involvement of the Olmsted Brothers
- F. The Architectural Competition
- G. Capitol Architect: Richard Kletting
- H. Specifications and Plans for the Capitol Construction
  - 1. An Interior of Elegance
  - 2. Concrete: A Modern Technology
- I. Construction Contracts
- J. Construction of the Utah State Capitol
  - 1. Excavation
  - 2. Dedication
- K. Capitol Design
  - 1. Legislative Floor
  - 2. Art Work
  - 3. Displays and Plaques
- L. The Grounds
  - 1. Monuments
- M. Other Structures on the Capitol Campus
- N. Renovations of the State Capitol
- O. Free Water?
- P. Another New Office Building
- Q. Recent Capitol Renovations
- R. Appendix: footnotes



#### III. BUILDING AND SITE DESCRIPTION

- A. Building description
  - 1. Background
  - 2. Architectural Style
  - 3. Structural System
  - 4. Floor Plans
  - 5. Exterior Design
  - 6. Interior Design
  - 7. Later Alterations
- B. 1916 and 2000 Building Plans and Elevations
- C. Site description

# IV. SPACE UTILIZATION & PRELIMINARY PROGRAMMING

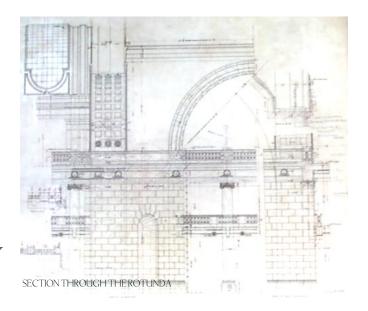
- A. Introduction
- B. Basic Assumptions
- C. Space Needs Assessment
- D. Locational Criteria
- E. Tables
- F. Strategies

### V. BUILT SITE FEATURES

- A. Introduction
- B. Standards
- C. Analysis of Site Features
  - 1. Water Distribution System
  - 2. Sanitary Sewer System
  - 3. Storm Drain System
  - 4. Site
- D. Alternatives
- E. Recommendations

#### VI. LANDSCAPE ELEMENTS

- A. Introduction
- B. Survey of Site Features
  - 1. Site Zones
  - 2. Vegetation
  - 3. Slopes
  - 4. Views
  - 5. Irrigation
- C. Standards and Criteria
- D. Analysis
  - 1. Life Safety
  - 2. Function -- Efficiency/Effectiveness
  - 3. Historic/Architectural Integrity





- E. Alternatives
- F. Recommendations
- G. Zoning

#### VII. TRAFFIC STUDY

- A. Introduction
  - 1. Purpose
- C. Survey Summary
  - 1. Study Area
  - 2. Analysis of Existing Conditions
  - 3. Physical Characteristics
  - 4. Traffic Volumes
  - 5. Level of Service
  - 6. Parking
  - 7. Accident History
  - 8. Pedestrian Circulation
- D. Alternatives
- E. Analysis of Alternatives
- F. Recommendations

PROPOSED FUTURE BUILDINGS, 1970

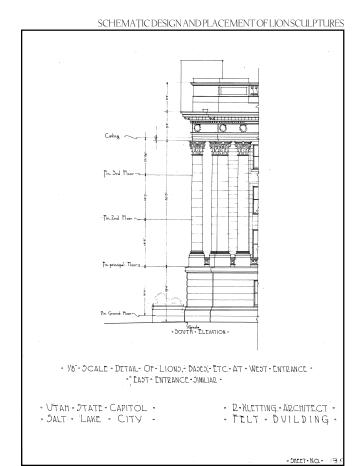
#### VIII. MONUMENTS, EXHIBITS AND ART

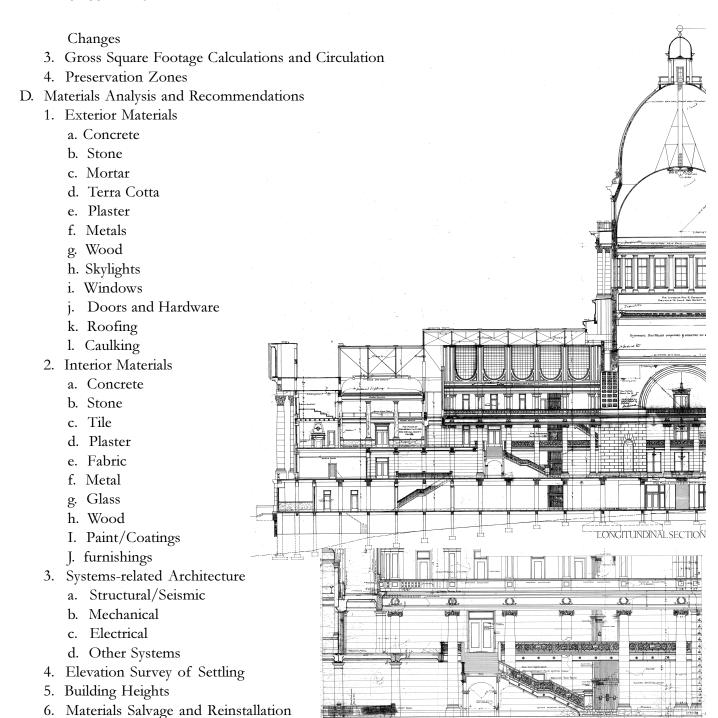
- A. Introduction
- B. Survey Summary
- C. Inventory of Existing Features
- D. Analysis
- E. Conclusions
- F. Visual and Graphic Design Standards
- G. Summary of Alternatives

### VOLUME III

#### IX. ARCHITECTURAL ELEMENTS

- A. Data Collection Findings
  - 1. Description of Archival Resources
- B. Survey of Existing Conditions
  - 1. Summary of Survey of Exterior Elements
  - 2. Summary of Survey of Interior Rooms
- C. Floor Plans Analysis and Recommendations
  - 1. Narrative Analysis and Recommendations
    - a. Basement Floor (1st Level)
    - b. Ground Floor (2<sup>nd</sup> Level)
    - c. Main Floor (3<sup>rd</sup> Level)
    - d. Second Floor ("Third Floor," 4th Level)
    - e. Third Floor ("Fourth Floor," 5th Level)
  - 2. Comparison of 1916 and 2000 Floor Plans and





MAIN ATRIUM STAIR

#### E. Other Buildings on Capitol Hill:

7. Completing an Unfinished Symphony

Background, Existing Conditions, Analysis and Recommendations

- 1. Archives Building
- 2. Boiler Plant
- 3. Greenhouse
- 4. Data Collection Center
- 5. State Office Building
- Roundhouse/Cafeteria
- 7. Garage/Plaza

- 8. Gas Station
- 9. White Memorial Chapel
- 10. Council Hall/Travel Council
- 11. D.U.P Museum Complex
- F. Design Guidelines & Design Review Procedures

#### X. HISTORIC INTERIOR FINISHES

- A. Introduction and Survey Summary
- B. Recommendations

#### XI. STRUCTURAL/SEISMIC SYSTEMS

- A. Introduction
  - 1. Purpose and Scope
  - 2. Innovations in Methods and Codes Since 1993
- B. Standards
  - 1. Building Codes
- C. Analysis
  - 1. Site Characteristics and Seismicity
  - 2. Building Characteristics
  - 3. Method of Analysis
  - 4. Enhanced Rehabilitation Objective
  - 5. Findings
- D. Alternatives & Recommendations
  - 1. Previous Recommendations and Alternatives
  - 2. Recommended Rehabilitation Objective
  - 3. Summary of Possible Retrofit Schemes

#### XII. MECHANICAL SYSTEMS

- A. Survey Summary
  - 1. Brief History of Mechanical Systems
  - 2. Current Mechanical Systems
- B. Standards and Criteria
  - 1. Heating, Ventilating, Cooling, and Plumbing Systems
- C. Analysis
- D. Alternatives
- E. Recommendations
- F. Summary of Alternative Costs

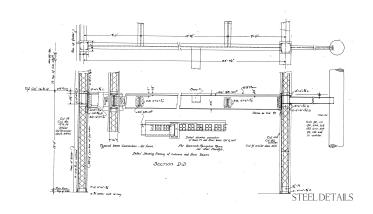
#### XIII. ELECTRICAL SYSTEMS

#### electrical

- A. Survey Summary
- B. Standards
- C. Existing Conditions
- D. Analysis
- E. Alternatives



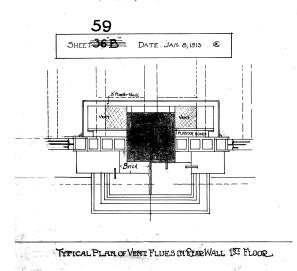
VIEW OF THE HOUSE LOUNGE



TYPICAL

• DETAILS OF REAR WALL SECTIONS •

• Scale 34 Inch = 1-0 •



- F. Recommendations
- G. Appendix: Report of Measured Illuminance

#### communications

- A. Survey Summary
- B. Standards
- C. Existing Conditions
- D. Analysis
- E. Alternatives
- F. Recommendations

#### security

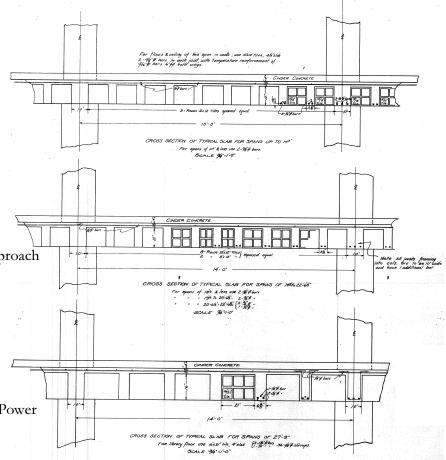
- A. Survey Summary
- B. Standards
- C. Existing Conditions
- D. Analysis
- E. Alternatives
- F. Recommendations

#### XIV. LIFE SAFETY

- A. Introduction
  - 1.. Building Description
- B. Applicable Codes
  - 1. Performance-Based Design Approach
- C. Life Safety Approach
  - 1. Construction Type
  - 2. Occupancies
  - 3. Automatic Sprinkler Protection
  - 4. Fire Alarm
  - 5. Floor Separations
  - 6. Exiting
  - 7. Elevator Lobbies/Emergency Power
  - 8. Summary

#### XV. ELEVATORS

- A. Survey Summary
- B. Equipment Evaluation
  - 1. Life Cycle Analysis
  - 2. Current Equipment Status
  - 3. Codes & Standards Review
  - 4. Americans with Disabilities Act Compliance Survey
- C. Maintained Condition Evaluation
  - 1. Maintenance & Performance Evaluation
  - 2. Itemized Deficiencies
  - 3. Recorded Operating Performance
  - 4. Quality of Ride



"FIREPROOF" CLAY TILE FLOOR CONSTRUCTION

- 5. Traffic
- D. Conclusions and

Recommendations

- 1. Evaluation Findings
- 2. Recommendations
- 3. Upgrading Budget Cost estimates
- E. Appendices
  - 1. Photographs
  - 2. Equipment Profile
  - 3. Modernization/Upgrading Outline

#### XVI. ACCESSIBILITY

#### **ELEMENTS**

- A. Standards
- B. Findings
- C. Alternatives & Recommendations

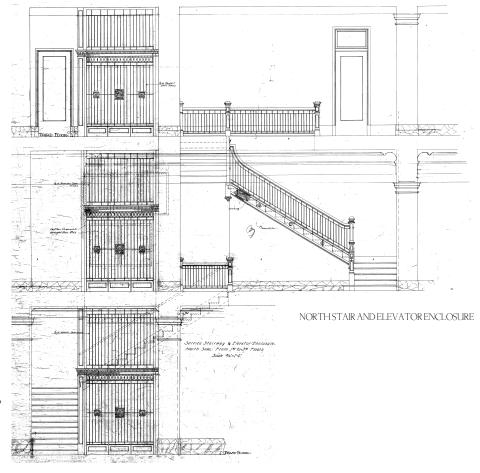
### XVII. ENVIRONMENTAL

#### REPORT

- A. Introduction
- B. Lead Paint
- C. Drinking Water
- D. Universal Hazardous Waste Materials
- E. Asbestos Management Plan
  - 1. Executive Summary
  - 2. Bulk Sampling Results
    - a. Table 1: Asbestos-containing Materials by Homogeneous Area
    - b. Table 6: Estimated Abatement Costs by Homogeneous Area
    - c. Executive Summary: Asbestos-containing Materials by Homogeneous Area
  - 3. ACM Location Plans
  - 4. Photograph Log

#### XVIII. SECURITY REPORT

- A. State Office Building
- B. Archives Building
- C. Capitol Building



### **VOLUME IV**

#### XIX. APPENDICES

- V. Built Site Survey
  - 1. Introduction
  - 2. Survey Map
  - 3. Survey Forms
- VIII. Monuments and Interpretive Elements Inventory
  - 1. Introduction and Maps
  - 2. Survey Forms

#### VOLUME V

- IX. Architectural
  - 1. Plans
    - a. Large Scale 2000 plans
    - b. R.K. Kletting plans and elevations
  - 2. Exterior Damage Survey
  - 3. Interior Room Survey
  - 4. Photographs
  - 5. Annotated Bibliography of Previous Studies on the Capitol
  - 6. List of Newspaper Articles
  - 7. Annotated excerpts from the 1915-16 Capitol Commission Report
  - 8. Companies and Employees Involved in Construction of the Capitol
  - 9. List of Historic Photos used in Report

### VOLUME VI

- X. Historic Interior Finishes
  - A. Survey Samples
  - B. Location of Samples Taken
- XI. Structural
  - A. Definitions
  - B. Schematic Plans and Details Depicting Recommendations for Retrofit.
  - C. Report: "Seismic protection of Domed Structures" Forell/Elsesser Engineers, Inc.
  - D. Base Isolation Track Record Reports DIS, Inc
  - F. Geotechnical Reports: "Letter Report, Site-Specific Time Response Spectra, Utah State Capitol Building", AGRA Earth and Environmental, Inc.,
  - G. Materials Testing Report: "Material Tesing Services, Existing Material Conditions, Existing Utah State Capitol Building", AGRA Earth and Environmental, Inc.
  - H. Excerpt; "The Wasatch Fault", Utah Geological Survey Public Information
- XII. Mechanical
  - 1. Mechanical drawings
  - 2. Fire Modeling Report Nexus
- XIII. Electrical
  - 1. Electrical drawings
- XIV. Life Safety
  - 1. Safety drawings

# NOTICE TO READERS REVIEWING THE 100% COMPLETE DOCUMENT From Cooper/Roberts Architects, September 13, 2000

Enclosed is the Cooper/Roberts Team's 100% complete report. This report includes the material found in the previously submitted "100% Rough Draft Document" plus the following revised or additional information:

Each of the major categorical sections (i.e., architectural, structural, mechanical, electrical, landscaping, etc.) has been expanded, revised and significantly rewritten for enhanced comprehensiveness, accuracy and clarity.

Extensive graphics have been added throughout the report to amplify understanding of the written narratives. At the request of the Capitol Preservation Board (CPB), the section on cost estimates has been removed from the report. The estimates will be contained in a separate document to be released later by the CPB. Several new sections have been added to the report, including the following:

- \* Introduction & Methodology
- \* Building & Site Description
- \* Floor Level Survey Analysis
- \* Mortar Analysis
- \* Security Issues
- \* Environmental Issues
- \* Site Design History
- \* Certain sections have been expanded by added entirely new information, including the sections on terra cotta, elevators and windows, among others.
- \* An historical summary has been added to the Executive Summary
- \* Additional categorical summaries and evaluation matrices have been included in the Executive Summary.



In addition to this multi-volume report, other addendum documents will be prepared and distributed, containing recommendations by consultants doing newly authorized, expanded investigation of the exterior stone and interior architectural finishes and colors, as well as the cost estimates mentioned above.

Inasmuch as this is the final publication of the primary report, further review comments will not be able to be included in this report. Submit any additional review comments to David Hart, AIA, Executive Director of the Capitol Preservation for possible inclusion in future addendum documents

Finally, Cooper/Roberts expresses its deep appreciation to David Hart, AIA for his valuable advice, instruction and careful review of this report, and to all of its staff members, consultants, Capitol Preservation Board members and staff, state legislators and the many others who have contributed the content or review comments that have shaped this document.

i.	TABLE OF CONTENTS